



A. Journal Articles

- Ahuja B.L.*, Dashora A.*, Heda N.L.*, Priolkar K.R.*, Vadkhiya L.*, Itou M.*, Lobo N.*, Sakurai Y.*, Chakrabarti A., Singh Sanjay, Barman S.R.*
Temperature dependent spin momentum densities in Ni Mn In alloys
Journal of Physics: Condensed Matter 22, 446001 (2010)
- Ali S.A.*, Bisht P.B.*, Nautiyal A.*, Shukla V., Bindra K.S., Oak S.M.
Conical emission in β -barium borate under femtosecond pumping with phase matching angles away from second harmonic generation
Journal of the Optical Society of America B 27, 1751-1756 (2010)
- Alimardani M.*, Paul C.P., Toyserkani E.*
On the microstructure of a thin wall formed under thermal and stress fields induced in laser solid freeform fabrication process Masoud
International Journal of Microstructure and Materials Properties 5, 276-297 (2010)
- Alimardani M.*, Paul C.P., Toyserkani E.*, Khajpour A.*
Multiphysics modelling laser solid freeform fabrication techniques
Advances in Laser Materials Processing Technology, Research and Applications
Editors, J. Lawrence, J. Pou, D.K. Low, E. Toyserkani, CRC Press and Woodhead Publishing Ltd, Cambridge, UK, First Edition. pp. 573- 599, August 2010.
- Arora V., Naik P.A., Chakera J.A., Khan R.A., Gupta P.D.
Study of 2ω and $3/2\omega$ harmonics in ultrashort high-intensity laser plasma interaction
Pramana: Journal of Physics 75, 1175 (2010)
- Badapanda M.K., Hannurkar P.R., Upadhyay R.
Crowbar protection for CW klystron amplifier
Journal of The Institution of Engineers (India) 91, 3-7, 2010
- Bajpai A.*, Jain N.K.*, Avashia S.*, Gupta P.K.
Randomized, double-blind study on role of low level nitrogen laser therapy in treatment failure tubercular lymphadenopathy, sinuses and cold abscess
Indian Journal of Tuberculosis 57, 80-86 (2010)
- Banik S., Chakrabarti A., Deb S.K., Jha S.N.*, Bhaskara Rao S.V.N.*, Joshic D.A.*, Thamizhavelc A.*, Dharc S.K.*
Band mapping of CeAg_2Ge_2 using angle-resolved photoemission spectroscopy
Solid State Communications 150, 1936-1939 (2010)
- Banik S., Chakrabarti A., Joshi D.A.*, Thamizhavel A.*, Phase D.M.*, Dharc S.K.*, Deb S.K.
Electronic structure of CeAg_2Ge_2 studied by resonant photoemission spectroscopy
Physical Review B - Condensed Matter and Materials Physics 82, 113107-113107-4 (2010)
- Bartwal K.S., Ryu H.*, Brik M.G.*, Sildos I.*
Preparation and spectroscopic studies of the $\text{Mg}_x\text{Sr}_{1-x}\text{Al}_2\text{O}_4:\text{Eu}, \text{Dy}$ ($x = 0.05-0.25$) persistent phosphors: a study on the control of dye solution temperature on the line-width and wavelength stability of a copper vapour laser pumped single mode dye laser
Optical Materials 32, 1329-1332 (2010)
- Bhalerao G.M.*, Polian A.*, Gauthier M.*, Iti Jean-Paul*, Baudelet F.*, Ganguli T., Deb Sudip K., Mazher J.*, Pag S.O.*, Firszt F.*, Paszkowicz W.*
High pressure x-ray diffraction and extended x-ray absorption fine structure studies on ternary alloy $\text{Zn}_{1-x}\text{Be}_x\text{Se}$
Journal of Applied Physics 108, 083533-7 (2010)
- Biswal R., Agrawal P.K., Mishra G.K., Nakhe S.V., Dixit S.K., Mittal J.K.
Development of a 16 kHz repetition rate, 110 W average power copper HyBRID laser
Pramana - Journal of Physics 75, 953-959 (2010)
- Biswas A.K., Bhagat M.S., Rana L.B., Verma A., Kukreja L.M.
Indigenous development of a 2 kW RF-excited fast axial flow CO_2 laser
Pramana - Journal of physics 75, 907-913 (2010)
- Chakravarty U., Naik P.A., Mukherjee C., Kumbhare S.R., Gupta P.D.
Formation of metal nanoparticles of various sizes in plasma plumes produced by Ti:sapphire laser pulses
Journal of Applied Physics 108, 053107 (2010)
- Chaliha R.S.*, Tiwari V.S., Gupta P.K., Annapurna K.*, Tarafder A.*, Karmakar B.*
Structure and dielectric properties of potassium niobate nano glass ceramics
Journal of Materials Science: Materials in Electronics 3610 (2010)



16. Chatterjee S.Pavan Kumar Y.,
Measurement of surface profile of a long-radius optical surface with wedge phase shifting lateral shear interferometer
Optical Engineering 49, 103602(1-6) (2010)
17. Chattopadhyay M.K., Manekar M.A., Sharma V.K., Arora P., Tiwari P., Tiwari M.K., Roy S.B.
Contrasting magnetic behavior of $Ni_{50}Mn_{35}In_{15}$ and $Ni_{50}Mn_{34.5}In_{15.5}$ alloys
Journal of Applied Physics 108 (2010)
18. Chattopadhyay M.K., Arora P., Mondal P., Roy S.B.
Magnetic transitions and thermomagnetic properties of $GdCu_6$
Journal of Magnetism and Magnetic Materials 322, 3142-3147 (2010)
19. Chaturvedi P.*, Majumder S.K., Krishna H.*, Muttagi S.*, Gupta Pradeep Kumar
Fluorescence spectroscopy for noninvasive early diagnosis of oral mucosal malignant and potentially malignant lesions
Journal of Cancer Research Therapy 6, 497-502, (2010)
20. Chaurasia S.*, Tripathi S., Munda D.S. *, Mishra G.*, Murali C.G.*, Gupta N.K.*, Dhareshwar L. J. *, Rossall A.K.*, Tallents G.J.*, Singh Rashmi, Kohli D.K., Khardekar R.K.
Laser interaction with low-density carbon foam
Pramana: Journal of Physics 75, 1191-1196 (2010)
21. Choubey R.K. *, Barhai P.K. *, Kar S., Sen P. *, Bartwal K.S.
Growth and Study of OH absorption band in doped $LiNbO_3$ Crystals
Nonlinear Optics and Quantum Optics 41, 343-350 (2010)
22. Das N.C.*, Sahoo N.K.*, Bhattacharyya D.*, Thakur S.*, Kamble N.M.*, Nanda D., Hazra S.*, Bal J.K.*, Lee J.F. *, Tai Y.L. *, Hsieh C.A. *
Correlation between local structure and refractive index of e-beam evaporated (HfO_2 - SiO_2 composite thin films.
Journal of Applied Physics 108, 023515-1-5 (2010)
23. Dasgupta R., Ahlawat Sunita., Verma R.S., Uppal A., Gupta Pradeep Kumar
Hemoglobin degradation in human erythrocytes with long-duration near-infrared laser exposure in Raman optical tweezers
Journal of Biomedical Optics 15, 055009 (2010)
24. Dasgupta R., Ahlawat Sunita, Verma R.S., Shukla S., Gupta Pradeep Kumar
Optical trapping of spermatozoa using Laguerre-Gaussian laser modes
Journal of Biomedical Optics 15, 065010 (2010)
25. Dinakaran S. *, Verma S., Jerome D.S. *, Kar S., Bartwal K.S.
Influence of forced convection on unidirectional growth of crystals
Physica B: Condensed Matter 405, 3919-3923 (2010)
26. Ganeev R. *, Singhal H., Naik P., Chakera J., Srivastava A., Dharmi T., Joshi M., Gupta P.D.
Enhanced harmonic generation in C60-containing plasma plumes
Applied Physics B: Lasers and Optics 100, 581-585 (2010)
27. Ganeev R.A. *, Singhal H., Naik P.A., Chakera J.A., Kumar M., Gupta P.D.
Fourth-order harmonic generation during parametric four-wave mixing in the filaments in ambient air
Physical Review A 82, 043812-7 (2010)
28. Ganeev R.A. *, Singha H., Naik P.A., Chakera J.A., Vora H.S., Khan R.A., Gupta P.D.
Systematic studies of two-color pump-induced high-order harmonic generation in plasma plumes
Physical Review A 82, 053831-7 (2010)
29. Ganesh P., Kaul R., Paul C.P., Tiwari P., Rai S.K., Prasad R.C. *, Kukreja L.M.
Fatigue and fracture toughness characteristics of laser rapid manufactured Inconel 625 structures
Materials Science and Engineering: A 527, 7490-7497 (2010)
30. Ganguli T., Mazher J. *, Polian A. *, Deb S.K., Villain F. *, Pages O. *, Paszkowicz W. *, Firszt F. *
Lattice relaxation in the highly-contrasted $Zn_{1-x}Be_xSe$ alloy: An extended x-ray absorption fine structure study
Journal of Applied Physics 108, 083539 1-7 (2010)
31. Gaur R., Shrivastava P.
Beam dynamics and electromagnetic design studies of 3 MeV RFQ for SNS programme.
Journal of Electromagnetic Analysis and Applications 2, 519-528 (2010)
32. Ghosh H.
Spin excitations and nonlinear optics of quasi one-dimensional Mott-Hubbard insulators
Europhysics Letters 91, 2010



33. Gupta P., Sinha A.K., Modi M.H., Gupta S.M., Gupta P.K., Deb S.K.
Resonant soft X-ray reflectivity as a sensitive probe to investigate polished zinc sulphide surface
Applied Surface Science 257, 210-214 (2010)
34. Jain R.K., Agrawal D.K., Vishwakarma S.C., Choubey A.K., Upadhyaya B.N., Oak S.M.
Development of underwater laser cutting technique for steel and zircaloy for nuclear applications
Pramana: Journal of Physics 75, 1253-1258 (2010)
35. Jain S.K., Naik P.A., Hannurkar P.R.
Design, fabrication, and characterization of a solenoid system to generate magnetic field for an ECR proton source
Sadhana 35, 461-468 (2010)
36. Jayabalan J., Singh A., Chari R.
Effect of edge smoothing on the extinction spectra of metal nanoparticles
Applied Physics Letters 97, 041904-1-3 (2010)
37. Joshi A.S., Naik P.A., Barnwal S., Prasad Y.B.S.R., Gupta P.D.
A novel technique for measurement of self-generated magnetic fields and the plasma density in laser produced plasmas from the Faraday rotation using two color probes
Optics Communications 283, 4713-4716 (2010)
38. Joshi M.J., Upadhyay J., Deshpande P.P., Sharma M.L., Navathe C.P.
Design of microcontroller based system for automation of streak camera
Review of Scientific Instruments 81, 085106-1-8 (2010)
39. Kaithwas N.*, Dave M. *, Kar S, Verma S., Bartwal K.S.
Studies on preparation and characterization of Nd: YAG nanocrystals
Crystal Research and Technology 45, 1179-1182 (2010)
40. Kamath M.P., Kulkarni A.P., Jain S., Tripathi P.K., Joshi A.S., Naik P.A., Gupta P.D.
Development of Raman-shifted probe laser beam for plasma diagnosis using polarointerferometer
Pramana - Journal of Physics 75, 883-888 (2010)
41. Kar S., Verma Sunil, Bartwal K.S.
Thermo-luminescence and optical characteristics of gamma irradiated Mn doped $\text{Li}_2\text{B}_4\text{O}_7$ single crystals
Physica B: Condensed Matter 405, 4299-4302 (2010)
42. Kaul R., Kumar H., Rao B.T., Kukreja L.M., Singh N., Vora H.S.
Studies on characteristics of CO_2 laser-GTAW hybrid welding of austenitic stainless steel
Journal of Laser Applications 22, 79-85 (2010)
43. Kumar M.*, Bhat T.N.*, Rajpalke M.K.*, Roul B.*, Misra P., Kukreja L.M., Sinha N.*, Kalghatgi A.T.*, Krupanidhi S.B.*
Self-assembled flower-like nanostructures of InN and GaN grown by plasma-assisted molecular beam epitaxy
Bulletin of Materials Science 33, 221-226 (2010)
44. Kumar Mahesh*, Roul B.*, Bhat T.N.*, Rajpalke M.K.*, Misra P., Kukreja L.M., Sinha N.*, Kalghatgi A.T., Krupanidhi S.B.*
Improved growth of GaN layers on ultra thin silicon nitride/Si(111) by RF-MBE
Materials Research Bulletin 45, 1581-1585 (2010)
45. Kumar Y. P., Babu S.M., Perero S*, Sai R.L.*, Bhaumik I., Ganesamoorthy S., Karnal A.K.
X-ray photoelectron spectroscopy, high-resolution X-ray diffraction and refractive index analyses of Ti-doped lithium niobate (Ti: LiNbO_3) nonlinear optical single crystals
Pramana - Journal of Physics 75, (2010)
46. Kumar Y.P., Chatterjee S.
Thickness measurement of transparent glass plates using a lateral shearing cyclic path optical configuration setup and polarization phase shifting interferometry
Applied Optics 49, 6552-6557 (2010)
47. Laskar M.R.*, Ganguli T., Rahman A.A.*, Shah A.P.*, Gokhale M.R.*, Bhattacharya A.*
MOVPE growth and characterization of a-plane AlGaIn over the entire composition range.
Physica Status Solidi: Rapid Research Letters 4, 163-165 (2010)
48. Mishra R.K., Nakhe S.V., Tiwari G.N., Mittal J.K.
Development of insulated gate bipolar transistor-based power supply for elemental copper vapour laser
Pramana - Journal of Physics 75, 967-973 (2010)
49. Mukhopadhyay P.K.
Femtosecond pulse generation and amplification in Yb-doped fibre oscillator amplifier system
Pramana - Journal of Physics 75, 787-805 (2010)
50. Nautiyala O.P.*, Bhatta S.C.*, Bartwal K.S.
Investigations on the effect of preparation conditions on AgNbO_3 ceramics



- Journal of Alloys and Compounds* 505, 168-171 (2010)
51. Oak S.M.
Green laser photocoagulator for the treatment of diabetic retinopathy developed at Raja Ramanna Centre for Advanced Technology
Pramana: Journal of Physics 75, 1273-1279 (2010)
52. Pal S., Singh S.D., Porwal S., Souza S.W.D*, Barman S.R.*
Comparative study on passivation of GaAs_{0.86}P_{0.14}/Al_{0.6}Ga_{0.4}As near-surface quantum well
Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films 28, 1319-1325 (2010)
53. Pandya S.*, Sherif S.*, Chandra L.S., Ganesan V.*
Resistive broadening in sulfur doped FeTe
Superconductor Science and Technology 23, (2010)
54. Pareek R.K., Kumbhare M.N., Joshi A.S., Banerjee A., Gupta P.D.
Optimization of single-layer sol-gel antireflection coatings on potassium dihydrogen phosphate crystals in quadrature geometry for second-harmonic conversion of high-power Nd:glass lasers
Optical Engineering 49, 091010 (2010)
55. Parihar A., Dube A., Gupta P.K.
Conjugation of chlorin p6 to histamine enhances its cellular uptake and phototoxicity in oral cancer cells
Cancer Chemotherapy and Pharmacology 10, 1-11 (2010)
56. Patwa S.R., Jain S., Tripathi P.K., Joshi A.S., Gupta P.D.
Optimization of laser hole drilling process on thick gold spherical hohlraums for intense X-ray generation
Pramana: Journal of Physics 75, 1203-1208 (2010)
57. Pradhan G.K.*, Narayana C.*, Pages O.*, Breidi A.*, Souhabi J.*, Postnikov A.V.*, Deb S.K., Firszt F.*, Paszkowicz W.*, Shukla A.*, El Haj Hassan F.*
Pressure-induced phonon freezing in the Zn_{1-x}Be_xSe alloy: A study via the percolation model
Physical Review B - Condensed Matter and Materials Physics 81, 115207(6) (2010)
58. Pradhan G.K.*, Kumar Anil, Deb S.K., Waghmare U.V.*, Narayana C.*
Elastic and structural instability of cubic Sn₃N₄ and C₃N₄ under pressure
Physical Review B 82, 144112-5 (2010)
59. Prakash O., Mahakud R., Saxena P., Dubey V.K., Dixit S.K., Mittal J.K.
A study on the control of dye solution temperature on the line-width and wavelength stability of a copper vapour laser pumped single mode dye laser
Optics Communications 283, 5099-5106 (2010)
60. Prazeres R.*, Berthet J.-P.*, Glotin F.*, Ortega J.-M.*, Biswas B., Kale U.
Laser beam profile analysis of a hole coupled free-electron laser
Physical Review Special Topics - Accelerators and Beams 13, 090702-5 (2010)
61. Raghuramaiah M., Patidar R.K., Joshi R.A., Naik P.A., Gupta P.D.
Generation of synchronized signal and pump pulses for an optical parametric chirped pulse amplification based multi-terawatt Nd: glass laser system
Pramana - Journal of Physics 75, 869-874 (2010)
62. Raj Mohan S., Singh M.P., Joshi M.P.
Negative field dependence of mobility in disordered organic thin films due to non-equilibrium charge transport
Organic Electronics 11, 1642-1648 (2010)
63. Ram S.P., Tiwari S.K., Mishra S.R.
A comparison of pulsed and continuous atom transfer between two magneto-optical traps
Journal of the Korean Physical Society 57, 1303-1307 (2010)
64. Rao P.N., Modi M.H., Lodha G.S.
Optical properties of indium phosphide in the 50-200 wavelength region using a reflectivity technique
Applied Optics 49, 5378-5383 (2010)
65. Romanov I.V.*, Rupasov A.A. *, Shikanov A.S.*, Paperny V.L. *, Moorti A., Bhat R.K., Naik P.A., Gupta P.D.
Energy distributions of highly charged ions escaping from a plasma via a low-voltage laser induced discharge
Journal of Physics D: Applied Physics 43, (2010)
66. Sahu K., Verma Y., Sharma M., Rao K.D, Gupta P.K.
Non-invasive assessment of healing of bacteria infected and uninfected wounds using optical coherence tomography
Skin Research Technology 16, 428-37 (2010)
67. Saikia C.*, Reenamoni*, Annapurna K.*, Tarafder A.*, Tiwari V.S., Gupta P.K., Karmakar B.*
Structure, dielectric and optical properties of



- transparent $\text{Nd}^{3+}:\text{KNbO}_3$ nanocrystalline glass-ceramics
Optical Materials 32, 1202-1209 (2010)
68. Sharath Chandra L.S.*, Chattopadhyay M.K., Sharma V.K., Roy S.B.
Temperature dependence of thermoelectric power and thermal conductivity in ferromagnetic shape memory alloy $\text{Ni}_{50}\text{Mn}_{34}\text{In}_{16}$ in magnetic fields
Physical Review B 81, 195105-1-8 (2010)
69. Sharma Ashutosh, Panwar C.B., Arya R., Oak S.M.
Cycle by cycle closed loop control techniques for SMPS based laser diode driver
Journal of the Instrument Society of India 40, 92-96 (2010)
70. Sharma S.K., Singh A.J., Mukhopadhyay P.K., Oak S.M.
101 W of average green beam from diode-side-pumped Nd: YAG/LBO-based system in a relay imaged cavity
Pramana - Journal of Physics 75, 935-940 (2010)
71. Sharma S.K., Singh A.J., Mukhopadhyay P.K. and Oak, S.M.
Efficient and high-power green beam generation by frequency doubling of acousto-optic Q-switched diode-side pumped Nd: YAG rod laser in a coupled cavity
Pramana - Journal of Physics 75, 941-945 (2010)
72. Sharma S.K., Mukhopadhyay P.K., Singh Amarjeet, Ranganathan K., Oak S.M.
A simple, compact, and efficient diode-side-pumped linear intracavity frequency doubled Nd:YAG rod laser with 50 ns pulse width and 124 W green output power.
Review of Scientific Instruments 81, 073104-1-7 (2010)
73. Sharma V.K., Chattopadhyay M.K., Nath S.K., Sokhey K.J.S., Kumar R., Tiwari P., Roy S.B.
The effect of substitution of Mn by Fe and Cr on the martensitic transition in the $\text{Ni}_{50}\text{Mn}_{34}\text{In}_{16}$ alloy
Journal of Physics: Condensed Matter 22, (2010)
74. Sharma V.K., Chattopadhyay M.K., Khandelwal A., Roy S.B.
Martensitic transition near room temperature and the temperature- and magnetic-field-induced multifunctional properties of $\text{Ni}_{49}\text{CuMn}_{34}\text{In}_{16}$ alloy
Physical Review B 82, (2010)
75. Singh A., Jayabalan J., Chari R., Srivastava H., Oak S.M.
Tuning the localized surface plasmon resonance of silver nanoplatelet colloids
Journal of Physics D: Applied Physics 43, 335401 (2010)
76. Singh A.J., Sharma S.K., Mukhopadhyay P.K., Oak S.M.
Dual wavelength operation in diode-end-pumped hybrid vanadate laser
Pramana - Journal of Physics 75, 929-934 (2010)
77. Singh Bijendra, Subramaniam V.V., Daultabad S.R., Chakraborty Ashim
Axicon based conical resonators with high power copper vapor laser
Review of Scientific Instruments 81, 073110-1-4 (2010)
78. Singh Bijendra, Subramaniam V.V., Daultabad S.R., Chakraborty Ashim
Enhanced performance of a wide-aperture copper vapour laser with hydrogen additive in neon buffer gas
Pramana - Journal of Physics 75, 961-965 (2010)
79. Singh Bijendra, Subramaniam V.V., Daultabad S.R., Ghodke D.V., Chakraborty Ashim
Performance of hybrid, diffraction, and continuously coupled cat-eye resonators with kinetically enhanced copper vapor lasers
Optical Engineering 49, 091011-12 (2010)
80. Singh C.P., Bindra K.S., Oak S.M.
Nonlinear optical studies in semiconductor doped glasses under femtosecond pulse excitation
Pramana - Journal of Physics 75, 1169-1173 (2010)
81. Singh G., Tiwari V.S.
Anomaly in dielectric and piezoelectric properties of $(1-x)\text{Pb}[\text{Mg}_{1/3}\text{Nb}_{2/3}]\text{O}_3-x\text{PbZrO}_3$ ceramic
Solid State Communications 150, 1778-1781 (2010)
82. Singh Nageshwar
On the microstructure of thermal and fluid flow field in a lasing medium of a high repetition rate dye laser
Optik - International Journal for Light and Electron Optics 121, 1642-1648 (2010)
83. Singh S.D., Dixit V.K., Porwal S., Kumar Ravi, Srivastava A.K., Ganguli T., Sharma T.K. Oak S.M.
Observation of electron confinement in InP/GaAs type-II ultrathin quantum wells
Applied Physics Letters 97, 3486470-3 (2010)
84. Singh S.D., Porwal S., Alexander K., Dixit V.K., Srivastava A.K., Oak S.M.
Temperature dependence of the photoluminescence



- from InP/GaAs type-II ultrathin quantum wells
Journal of Physics D: Applied Physics 43, (2010)
85. Singh S.P.*, Modi M.H., Srivastava P.
Growth kinetics and compositional analysis of silicon rich a-SiN_x:H film: A soft x-ray reflectivity study
Applied Physics Letters 97, 151906 (2010)
86. Singh Sarab Preet, Prakash G.V.*, Ghosh S.*, Rai S.K., Srivastava P.*
Impact of thermal annealing on interfacial layer and electrical properties of a-SiN_x:H/Si
Europhysics Letters 90, 26002-1-6 (2010)
87. Singhal H., Ganeev R.A.*, Naik P.A., Chakera J.A., Chakravarty U., Vora H.S., Srivastava A.K., Mukherjee C., Navathe C.P., Deb S.K., Gupta P.D.
High-order harmonic generation in a plasma plume of in situ laser-produced silver nanoparticles
Physical Review A 82, 043821-4 (2010)
88. Sokhey K.J.S., Rai S.K., Lodha G.S.
Oxidation studies of niobium thin films at room temperature by X-ray reflectivity
Applied Surface Science Analyst 257, 222-226 (2010)
89. Solanki P.S.*, Vachhani P.S.*, Markna J.H.*, Doshi R.R.*, Pandya S.*, Choudhary R.J.*, Phase D.M.*, Ganesan V.*, Rana D.S.*, Misra P., Kukreja L.M., Kuberkar D.G.
Studies on mixed valent manganites: nanostructured bulk, thin film multilayer and devices
Journal of Science 1, 7-15 (2010)
90. Suhane S.K., Haridas G., Nayak M.K., Verma D., Banerjee R.S., Chouksey S., Singh Gurnam
Engineering design and development of shielding door and safety shutter for transfer line-3 tunnel of Indus accelerator complex
Indian Journal of Pure & Applied Physics 48, 794-797 (2010)
91. Thomas P.*, Satapathy S., Dwarakanath K.*, Varma K.B.R.*
Dielectric properties of poly(vinylidene fluoride) / CaCu₃Ti₄O₁₂ nanocrystal composite thick films
Express Polymer Letters 4, 632-643 (2010)
92. Tiwari A.K., Hannurkar P. R.
Electromagnetic analysis of reentrant klystron cavity
Journal of Infrared, Millimeter, and Terahertz Waves 31, 1221-1224 (2010)
93. Verma S.
In situ and real-time monitoring of process parameters during growth of KDP crystal, an important ferroic material
Phase Transitions 83, 714-727 (2010)
94. Wang J.*, Yu W.*, Yu M.Y.*, Lei A.L.*, Wang X.*, Senecha V.K., Wang X.G.*, Murakami M.*, Mima K.*
Guiding of intense laser pulse in uniform plasmas and preformed plasma channels
Physics of Plasmas 17, (2010)
95. Waugh S., Chowdhury Avijit, Banerjee Arup
On the variation of polarizability and hyperpolarizability of a confined atom with the strength of confinement: a case study of a helium atom
Journal of Physics B: Atomic, Molecular & Optical Physics 43, (2010)



B. Invited Talk

1. Ali S.A.*, Nautiyal A.*, Bisht P.B.*, Shukla V, Bindra K.S., Oak S.M.
Filamentation and nonlinear X-wave formation in β -barium borate under femtosecond pumping
DAE-BRNS National Laser Symposium, Dec. 1-4, 2010, RRCAT, Indore.
2. Chakera J.A.
Recent experimental studies on ultrahigh intensities Laser-plasma interaction at RRCAT
25th National Symposium on Plasma Science & Technology (PLASMA-2010), Guwahati, Dec. 8-11, 2010
3. Dasgupta R.
Raman spectroscopic studies of optically trapped red blood cells
Topical Conference on Interaction of EM Radiation with Atoms, Molecules and Clusters (TC-2010), Indore, March 3-6, 2010
4. Gupta P.K.
Biomedical applications of lasers: an overview of the activities at RRCAT
University of Texas, Arlington, USA, Aug. 17, 2010 and also at The University of Alabama at Birmingham, Birmingham, USA, Aug. 19, 2010
5. Gupta P.K.
Biomedical applications of lasers
LASERFEST, Delhi, Sept. 19, 2010
6. Gupta P.K.
Biomedical applications of lasers
National Workshop on Recent advances in Biotechnology & Biochemical Engineering, Indore, Oct. 20, 2010
7. Gupta P.K.
Biomedical applications of optical imaging & spectroscopy
International Conference on Fiber Optics and Photonics, (PHOTONICS - 2010), Guwahati, December 11-15, 2010
8. Gupta P.K.
Optical imaging and diagnosis - some recent developments at RRCAT
DAE- BRNS National Laser Symposium (NLS-19), Indore, Dec. 1-4, 2010
9. Gupta P.K.
Optical manipulation and spectroscopic investigations on cells / intra-cellular objects
International Conference on Physics of Emerging Functional Materials (PEFM - 2010), Mumbai, Sept. 22-24, 2010
10. Gupta P.K., Majumder S.K., Dasgupta R.
Raman spectroscopy for biomedical diagnosis
XXII International Conference on Raman Spectroscopy (ICORS-2010), Boston, USA, Aug. 09-13, 2010
11. Gupta P.K.
Use of optical spectroscopic and imaging techniques for biomedical diagnosis
Indo-US workshop on Applications of Molecular Imaging in Health, Disease & Drug Discovery, Centre for Cellular & Molecular Biology, Hyderabad, Nov. 8-10, 2010
12. Kukreja L.M.
Anomalous optical processes in photoluminescence from ultra-small quantum dots of ZnO grown by pulsed laser deposition
6th International Workshop on Zinc Oxide and Related Materials, Changchun, China, 5-9 August, 2010
13. Kukreja L.M.
Nanomaterials for Renewable Energy: Research at RRCAT
Applied Physics Colloquium, Helsinki, Finland, 16 November, 2010
14. Kukreja L.M.
ZnO nanostructures for photonic devices
Materials Science Seminar, Hangzhou, China, 11 August, 2010
15. Kumar Ajeet*, Senecha V.K.
Cusp loss width in multicusp negative ion source: A rigorous mathematical treatment
2nd International conference on Negative ions, beams and source (NIBS-2011), Takayama, Japan, 16-19 Nov. 2010
16. Rao K.D.
Recent studies on optical coherence tomography imaging of biological tissues
International Conference on Systems in Medicine & Biology (ICSMB2010) Kharagpur, Dec 16-18, 2010
17. Singhal H.
High order harmonic generation from laser produced plasma plumes
25th National Symposium on Plasma Science & Technology (PLASMA-2010), Guwahati, Dec. 8-11, 2010



C. Seminars/Conference Presentation

C1 19th National Laser Symposium, Indore, 01-04 December, 2010

1. Ali S.A.*, Nautiyal A.*, Bisht P.B.*, Shukla V, Bindra K.S., Oak S.M.
Filamentation and nonlinear X-wave formation in BaB_2O_7 barium borate under femtosecond pumping.
2. Arora V., Naik P.A., Chakera J.A., Ganeev R.A., Kumbhare S.R., Gupta P.D.
Spectroscopic study of laser light specularly reflected from solid targets irradiated by ultra-intense laser pulses
3. Ashoka H., Jathar M.R., Malaviya N.D., Kahan S., Jayabalan J., Chari R.
Microcontroller based optical delay generator
4. Bhargava P., Paul C.P., Prem Singh C.H., Mishra S.K., Kukreja L.M.
Studies on plasma transferred arc deposition of Inconel 625 for hybrid laser rapid manufacturing
5. Biswal R., Mishra G.K., Purbia G.S., Agrawal P.K., Prakash O., Dixit S.K., Mittal J.K.
A comparative study on thermal lensing characteristics of a Copper-Hydrogen Bromide (Cu-HBr) laser and an elemental copper vapour laser
6. Bitra T.R. Verma B., Kaul R., Kukreja L.M.
Effect of CO_2 laser power modulations on the morphology and micro-structure of laser cut edges
7. Borage M., Khatwani H., Tiwari Sunil
A versatile driver for laser diodes
8. Chakrabarti A., Kamal C., Banerjee A., Ramaniah L.M.*
First principles study of linear and nonlinear optical response properties of some amino acids
9. Chakravarty U., Naik P.A., Gupta P.D.
Electric field resonances in laser irradiated nanotubes
10. Chakravarty U., Ganeev R.A.*, Chakera J.A., Babu M., Naik P.A., Gupta P.D.
Nano-ripple formation on different band-gap semiconductor surfaces using femtosecond pulses
11. Chakravarty U., Upadhyaya B.N., Kuruvila A., Oak S.M.
Operation of Yb-doped double clad fiber laser at different center wavelengths by using Fiber Bragg Grating mirrors
12. Choubey Ambar, Jain R.K., Singh Ravindra, Ali S., Vishwakarma S.C., Agrawal D.K., Misra Pushkar, Upadhyaya B.N., Oak S.M.
Development of ceramic reflector based pump cavity for high average power pulsed Nd: YAG laser
13. Choubey Ambar, Singh Ravindra, Vishvakarma S.C., Misra Pushkar, Vachhani D.M., Jain R.K., Pant K.K., Arya R., Upadhyaya B.N., Oak S.M.
Development of fiber-coupled short pulsed Nd: YAG laser for cleaning applications
14. Deshpande P.P., Valecha A., Bhanage V.P., Navathe C.P., Kamath M.P., Kulkarni A.P., Jain S., Joshi A.S., Naik P.A.
Prototype alignment system for a high power laser chain
15. Dixit V.K., Pal S., Jangir R., Khamari S.K., Babudayal P., Singh S.D., Porwal S., Kumar R., Mishra Sarvesh, Khaka A., Ganguli T., Mukherjee C., Oak S.M.
Demonstration of 450mW/facet CW semiconductor laser at 980nm
16. Ghosh H.
Role of spin excitations in the nonlinear optics of one dimensional Mott - Hubbard insulators
17. Hedao P., Sundar R., Ranganathan K., Oak S.M.
Development of powder spreading mechanism for selective laser melting and its application
18. Jain L., Jain S., Joshi A.S., Bhanage V.P., Chakravarty U., Pareek R., Naik P.A., Navathe C.P.
Development of a scatterometer for measurement of optical surface roughness
19. Jangir R., Ganguli T., Tiwari P., Porwal S., Srivastava H., Rai S.K., Oak S.M.
Synthesis and characterization of $\beta\text{-Ga}_2\text{O}_3$ nanostructures on GaAs substrates
20. Joshi A.S., Kulkarni A.P., Kamath M.P., Singh C.P., Bindra K.S., Naik P.A., Gupta P.D., Krishnaiah K.V.*, Jayasankar C.K.*
Intensity dependent refractive index of Yb doped fluorophosphate glass nonlinear optical refraction measurement in ferro-fluids under femtosecond pulse excitation
21. Joshi M.P., Dhami T.S., Raj Mohan S.
Photoluminescence quenching of conjugated polymer with PbS nanoparticles



22. Kar S., Verma S., Bartwal K.S., Gupta P.K.
Thermoluminescence characteristics of Mn doped $\text{Li}_2\text{B}_4\text{O}_7$ single crystals
23. Khamari S.K., Dixit V.K., Ganguli T., Singh S.D., Mukherjee C., Ingale A., Shripathi T.*, Oak S.M.
Strain dependence of band offset in GaP/GaAs heterostructure
24. Khan S., Chari R., Pal S., Oak S.M.
Photo-excited carrier relaxation in GaAsP/AlGaAs single quantum wells
25. Khare J., Srivastav H., Prem Singh C.H., Kaul R., Kukreja L.M.
Vapor phase synthesis of Ytria stabilized zirconia nanoparticles using CO_2 laser
26. Krishna H., Majumder S.K., Rao K.D., Gupta P.K.
Development of a spectral imaging system for tissue imaging
27. Krishna H., Rao K.D., Majumder S.K., Bhattacharjee M., Gupta P.K.
Multi-class classification of optical coherence tomography images of human tissue
28. Kulkarni A.P., Sreedhar N., Rajiv K., Joshi A.S., Naik P.A., Gupta P.D., Krishnaiah K.V., Jayashankar C.K.*
Intensity dependent nonlinear refractive index of glasses doped with different Nd concentrations measured by Boling method
29. Kumar Atul, Paul C.P., Mishra S.K., Prem Singh C.H., Kumar M., Kukreja L.M.
Prediction of single track geometry for laser rapid manufacturing using two dimensional numerical model
30. Kumar M., Ganeev R.A., Singhal H., Naik P.A., Chakera J.A., Gupta P.D.
Fourth harmonic generation during parametric four-wave mixing in air filamentation,
31. Kumar M., Biswas A.K., Reghu T., Kukreja L.M.
Quantitative analysis of gas dissociation for arc free operation of a TEA- CO_2 laser
32. Mishra V., Biswas A.K., Gopal R.*, Sarepaka V.*, Kukreja L.M.
Development of a $\lambda/2$ phase step mirror for a high power CO_2 laser resonator using single point diamond turning
33. Mishra G.K., Biswal R., Kumbhkar U., Prakash O., Dixit S.K., Mittal J.K.
Effect of dye flow rate on the line-width and temporal characteristics of 18 kHz repetition rate dye laser pumped by copper-hydrogen bromide (Cu-HBr) laser
34. Mukhopadhyay P.K.*, Sharma S.K., Singh A.J., Oak S.M., Prakash O., Mahakud R., Dixit S.K.
Efficient dye Laser pumping using in house built DPSS green laser
35. Pakhare J.S., Reghu T., Kumar M., Kukreja L.M.
A Compact 10 kV pulsed power supply for preionization of V-Fold CW CO_2 laser
36. Pal Suparna, Singh S.D., Porwal S., D'Souza S.W.*, Barman S.R.*, Oak S.M.
Passivation of $\text{GaAs}_{0.86}\text{P}_{0.14} / \text{Al}_{0.6}\text{Ga}_{0.4}\text{As}$ near surface quantum well
37. Paul C.P., Mishra S.K., Prem Singh C.H., Tiwari P., Bhargava P., Kukreja L.M.
Laser rapid manufacturing and characterization of cross thin walled porous structure of Inconel-625 alloy
38. Pareek R., Joshi A.S., Kumbhare M.N., Naik P.A., Gupta P.D.
Studies of sol gel based porous silica anti-reflection coatings deposited on phosphate laser glass rods as protective coatings against humidity
39. Patidar R.K., Sharma A.K., Raghuramaiah M., Kulkarni A.P., Joshi A.S., Naik P.A., Gupta P.D.
Pulse front distortion studies for optical parametric chirped pulse amplification based ultrashort pulse high energy laser system
40. Raghu T., Verma A., Kumar M., Mandloi V., Kukreja L.M.
A double pulsed high current thyatron grid driver
41. Raj Mohan S., Joshi M.P., Singh M.P.
Monte Carlo simulation of transient photocurrent pulse in disordered organic thin films: Influence of film morphology
42. Ram S.P., Tiwari S.K., Mishra S.R., Mehendale S.C.
Investigation of atom transfer by resonant and off-resonant push beam in a double magneto-optical trap setup
43. Ram S.P., Tiwari S.K., Mishra S.R., Mehendale S.C.
Magnetic trapping of 87Rb atoms
44. Rao B.S., Chakera J.A., Naik P.A., Kumar M., Gupta P.D.



PUBLICATIONS (JULY 2010- DEC 2010)

- Generation of 50 MeV electron beam from sub-mm size laser-driven accelerator
45. Saha D.D., Reghu T., Kukreja L.M.
A 50 kW EMC complied, current programmable SMPS for multi kilowatt CW CO₂ laser
46. Sahu K., Verma Y., Sharma M., Rao K.D., Gupta P.K.
Non invasive assessment of response of curcumin treated and untreated wounds in mice by optical coherence tomography
47. Sharma A.K., Raghuramaiah M., Patidar R.K., Joshi A.S., Naik P.A., Gupta P.D.
Quadrati response of commercial grade light emitting diode: Issues of wavelength dependence and dynamic range
48. Sharma A.K., Joshi A.S., Naik P.A., Gupta P.D.
Studies on the criticalities involved in designing a laser super cavity
49. Sharma S.K., Singh A.J., Mukhopadhyay P.K.*, Oak S.M.
131W of average green beam generation by intracavity frequency doubling of acousto optically Q-switched Nd:YAG/KTP laser
50. Singh A.J., Sharma S.K., Mukhopadhyay P.K.*, Oak S.M.
75W of continuous-wave green beam generation by intracavity frequency doubling of diode side pumped Nd:YAG laser
51. Singh A.J., Sharma S. K., Mukhopadhyay* P. K. and Oak S. M.
A compact diode-end-pumped AO-Q switched intracavity frequency doubled green laser for laser-doping in silicon photocell
52. Singh Asha, Jayabalan J., Chari R.
Tuning the surface plasmon resonance of silver nanoplatelet films
53. Singh Bijendra, Subramanyam V.V., Daultabad S.R., Ghodke D.V., Chakraborty Ashim
Performance of axicon based conical resonators (ABCRs) with kinetically enhanced copper vapor laser
54. Singh C.P., Shukla V, Philip J*, Bindra K.S.
Nonlinear optical refraction measurement in ferrofluids under femtosecond pulse excitation
55. Singh S., Tiwari V.B., Rawat H.S.
High resolution spectroscopy of metastable Kr atoms for laser frequency stabilization
55. Singh S.D., Dixit V.K., Porwal S., Kumar Ravi, Srivastava A.K., Ganguli T., Oak S.M.
Structural and optical properties of metal organic vapour phase epitaxy grown InP/GaAs type-II ultrathin quantum wells
56. Singhal H., Ganeev R.A., Naik P.A., Chakera J.A., Kumar M., Joshi M.P., Srivastava A.K., Gupta P.D.
Study of high order harmonic generation from plasma plumes containing carbon nanotubes
57. Singhal H., Ganeev R.A., Chakera J.A., Naik P.A., Kumar M., Gupta P.D.
Tuning of high order harmonic resonances in Sn plasma plume using intensity variation of two-colour pump
58. Srikanth G., Upadhyaya B.N., Saini B.K., Oak S.M.
Development of a 5 W CW single transverse mode Er:Yb co-doped fiber laser at 1565 nm
59. Srikanth G., Upadhyaya B.N., Kumar Jitendra, Dixit S.K., Singh Rajpal, Jain R.K., Oak S.M.
Development of 8.5 W Yb-doped double-clad CW fiber laser at 1030nm
60. Sundar R., Ranganathan K., Hedao P.S., Oak S.M.
2.5J, 7ns Nd:YAG oscillator amplifier system for laser shock peening
61. Tayyab M., Chakera J.A., Kumar M., Naik P.A., Gupta P.D.
MeV neutron generation in the interaction of ultra-intense laser pulses with deuterated polyethylene target
62. Tiwari S., Bhanage V., Deshpande P.P., Ganguli T., Navathe C.P., Oak S.M.
SCADA software for gallium nitride metal organic vapour phase epitaxy system
63. Upadhyaya B.N., Misra Puskar, Vishwakarma S.C., Choubey Amber, Arya R., Kumar Sajith, Kumar Manoj, Bhawsar V., Raju A., Jain R.K., Ali S., Agrawal D.K., Oak S.M.
Development of 300 J pulse energy in long pulse operation of Nd: YAG laser
64. Verma S., Kar S., Bartwal K.S., Gupta P.K.
Holographic data storage properties of single (Fe) and double (Fe, Mn) doped congruent lithium niobate crystals
65. Vora H.S., Ram S.P., Mishra S.R.
A novel technique to store and process absorption probe images of cold atom cloud



C2 25th National Symposium on Plasma Science & Technology, Guwahati, Dec. 8-11, 2010

1. Arora V., Khan R.A., Chakera J.A., Ganeev R.A., Naik P.A., Gupta P.D.
Half-integral harmonic emission from plasmas produced by high intensity femtosecond laser pulses
2. Barnwal S., Prasad Y.B.S.R., Nigam S., Aneesh K., Chakera J.A., Naik P.A., Navathe C.P., Gupta P.D.
Dynamics of a capillary discharge plasma
3. Chakravarty U., Rao B.S., Arora V., Singhal H., Naik P.A., Chakera J.A., Gupta P.D.
Enhanced water window x-ray emission from graphite target by dual time delayed Ti:sapphire laser pulses.
4. Chakravarty U., Naik P.A., Gupta P.D.
Upshift of the resonance density due to asymmetric expansion of laser irradiated nanorods
5. Joshi A.S., Prasad Y.B.S.R., Naik P.A., Barnwal S., Gupta P.D.
A novel technique for measurement of the plasma density and self generated magnetic fields in non-axisymmetric plasmas using two colour probes
6. Kumar M., Ganeev R.A., Singhal H., Chakera J.A., Naik P.A., Gupta P.D.
Efficient high order harmonic generation from plasma plumes of carbon containing materials
7. Prasad Y.B.S.R., Barnwal S., Naik P.A., Gupta P.D.
Analysis of three channel polaro-interferometer data of self generated magnetic fields in laser produced plasmas
8. Rao B.S., Chakera J.A., Naik P.A., Kumar M., Gupta P.D.
Effect of pre-pulse on ultra-intense femtosecond laser propagation in gas jet for electron acceleration
9. Rao B.S., Moorti A., Chakera J.A., Naik P.A., Gupta P.D.
Effect of focussing optics F-number on laser driven plasma based electron acceleration
10. Singhal H., Ganeev R.A., Naik P.A., Chakera J.A., Chakravarty U., Vora H.S., Srivastava A.K., Mukherjee C., Navathe C.P., Deb S.K., Gupta P.D.
High order harmonic generation in plasma plume of in situ produced silver nano-particles.
11. Singhal H., Ganeev R.A., Naik P.A., Chakera J.A., Vora

H.S., Khan R.A., Gupta P.D.

High order harmonic generation in plasma plumes using two-colour pump.

12. Tayyab M., Kumar M., Chakera J.A., Naik P.A., Gupta P.D.
Observation of photo-neutrons in the interaction of high intensity laser pulses with copper and beryllium targets.

C3 DAE-VIE 2010 (Department of Atomic Energy - Vision for Information Exchange), RRCAT, Indore, Dec., 9-10, 2010

1. Arzare D.K., Patil J., Agrawal R.P., Kulkarni S.S., Rawat A.
Cold aisle containment : a cost economic alternative to supplemental cooling for high density data centres,
2. Bansal A., Tomar S.S., Rawat A.
A practical approach to enhance squid proxy server performance - implementation, challenges and analysis
3. Chaudhari S., Tomar S.S., Rawat A.
Design and implementation of organization wide network traffic profiling, threat analysis and monitoring setup using open source tools
4. Jain A., Rajan A., Manyal M., Lakra N.
Digital certificate management using oracle 10g PKI for IT applications
5. Khare G., Rajan A., Pathy D., Sharma U., Rawat A.
Secured system for assessing APARs - EAGLE and CREST
6. Patil J., Tomar S.S., Rawat A.
Design and development of organization wide, open-source, email content and log analysis setup
7. Singh Neha., Verma R.K., Rajan A., Thander P.K., Rawat A.
Implementation of OS virtualization for license server
8. Sinnarkar D., Thander P.K., Rajan A., Rawat A.
Scientific computing using MATLAB,
9. Thander P.K., Rajan A., Rawat A.
HPC performance analysis using NPB
10. Tomar S.S., Patil J., Kumar A., Bachhil K.K., Yadav S.K., Rawat A.
A novel technique for caller ID based authentication, using Alcatel EPABX and Fedora directory server



C3 Others Seminars/Conference Presentations

1. Ajimsha R.S., Tyagi M., Das A.K., Misra P., Kukreja L.M.
Dye-sensitization of nanocrystalline ZnO thin films
Proc. International conference on physics of emerging functional materials (PEFM - 2010), Mumbai, 22-24 September, 2010, *AIP Conf. Proc.* 1313, 385 (2010)
2. Bindra K.S., Singh C.P., Shukla V, Philip J*.
Nonlinear absorption in ferro fluids
International Conference on Fiber Optics and Photonics, Photonics 2010, IIT, Kharagpur, Guwahati Dec. 11-15, 2010
3. Chakrabarti Aparna, Kamal C.
Electronic structures of transition metal doped group IV and III-V nanotubes
Psi-K Conference 2010, Berlin, Germany, Sept. 12-16, 2010
4. Chakravarty U., Upadhyaya B.N., Kuruvilla A., Oak S.M.
Investigation on thermal effects in high power Yb-doped fiber laser
International Conference on Fiber Optics and Photonics (PHOTONICS 2010), Guwahati, Dec. 11-15, 2010
5. Dasgupta R., Ahlawat Sunita, Verma R.S., Shukla S., Gupta Pradeep Kumar
Minimization of photodamage on trapped sperm cells using Laguerre-Gaussian laser modes
International Conference on Fiber Optics and Photonics, Photonics 2010, Guwahati, Dec. 11-15, 2010
6. Dasgupta R., Ahlawat Sunita, Verma R.S., Uppal A., and Gupta Pradeep Kumar
Raman spectroscopic study of hemoglobin degradation in optically trapped erythrocytes
XII International Conference on Laser Applications in Life Sciences, Oulu, Finland, 2010
7. Dasgupta R., Ahlawat Sunita, Verma R.S., Uppal A., and Gupta Pradeep Kumar
Spectroscopic studies on optically trapped red blood cells in malaria infected blood sample *Proceedings of XII International Conference on Laser Applications in Life Sciences*, Oulu, Finland, 2010
8. Gupta P. D., Naik P. A., Chakera J. A., Ganeev R., Singhal H., Rao B. S. , Arora V., Chakravarty U., and Khan R. A.
Ultrahigh intensity laser-matter interaction studies at RRCAT, Indore
AIP Conf. Proc. 1308, 51 (2010)
9. Jain A., Rajan A., Khare G., Sharma U.
Database as a Web Service for Application Integration based on SOA,
National Conference on Emerging Trends in Computing & Communication (ETCC 2010) , Indore, Nov., 19-20, 2010
10. Jangir R., Ganguli T., Tiwari P., Srivastava H., Rai S.K., Das A. K., Kukreja L. M. and Oak S. M.
Facile synthesis and characterization of b-Ga2O3 nanostructures via vapour transport method.
Proceedings of DAE- Solid State Physics Symposium 2010, Manipal, 2010
11. Khamari S.K., Dixit V.K., Ganguli T., Porwal S, Singh S.D, Kher S., Oak S.M.
Effect of 60Co γ ray irradiation on Electrical parameters of MOVPE grown GaAs epilayer and p-i-n detectors
Proceedings of National Symposium on Nuclear Instruments 2010, Mumbai, 2010
12. Khamari S.K., Dixit V.K., Sinha A.K., Banik S., Barman S.R.*, Oak S.M.
Studies of valance band alignment between nitride GaPN/GaP interface using photoelectron spectroscopy
Proceedings of DAE- Solid State Physics Symposium 2010, Manipal, 2010
13. Malhotra B.*, Thapliyal P.*, Thakur H.V.*, Sharma R.B.*, Chakravarty U., Upadhyaya B.N., Oak S.M.
A 9.6 W Yb-doped CW fiber laser using Photonic Crystal Fiber
International Conference on Fiber Optics and Photonics (PHOTONICS 2010), Guwahati, Dec. 11-15, 2010
14. Naik P.A., Chakera J.A., Singhal H., Rao B.S., Prasad Y.B.S.R., Chakravarty U., Arora V., Barnwal S., Tayyab M., Kumar M., Gupta P.D.
Recent advances in laser plasma interaction with ultrashort pulses at RRCAT, India



- 6th Asian Symposium on Intense Laser Science, Beijing, China, October 13 -16, 2010
15. Naik P.A., Rao B.S., Singhal H., Tayyab M., Prasad Y.B.S.R., Barnwal S., Chakera J.A., Gupta P.D.
Update on the activity on laser plasma interaction with ultrashort laser pulses at RRCAT, India
2nd International Committee Meeting & Symposium of the Asian Laser Centre at APRI APRI, GIST, Gwangju, Korea, Nov. 4-5, 2010
16. Pal Suparna, Singh S.D., Porwal S., Oak S.M.
Blueshift in GaAs_{0.86}P_{0.14}/Al_{0.7}Ga_{0.3}As near surface quantum well
Proceedings of DAE- Solid State Physics Symposium 2010, Manipal, 2010
17. Pal Suparna, Singh S.D., Dixit V.K., Ingale A., Tiwari P., Oak S.M.
Catalyst-free epitaxial growth of InAs nanowires on (001) Si
Proceedings of 6th International Workshop on Nano-Scale Spectroscopy and Nanotechnology, Kobe University, Japan, October, 2010
18. Parihar A., Dube A., Gupta Pradeep Kumar
Conjugation of chlorin p6 to histamine enhances efficacy of photodynamic treatment in human breast cancer cells
8th International Symposium on Photodynamic Therapy and Photodiagnosis in Clinical Practice, University of Padova, Italy, October 05-09, 2010
19. Purohit N.*, Borage M., Tiwari Sunil, Phulambrikar S.P.*
Modified full-bridge zero-voltage-switching dc-dc converter
Proc. ICEPES 2010, Bhopal, 26-28 Aug. 2010
20. Raj Mohan S., Singh M.P., Joshi M.P.
Negative field dependence of mobility in organic thin films,
Proceeding of BRNS DAE-Solid State Physics Symposium (SSPS), Manipal, 2010, p-275
21. Rao K.D., Upadhyaya P., Sharma M., Gupta P.K.
Non-invasive imaging of ethanol-induced eye defects in zebrafish larvae using optical coherence tomography
International Conference on Fiber Optics and Photonics, Photonics 2010, Kharagpur, Guwahati, Dec. 11-15, 2010
22. Sharma P., Verma Y., Rao K.D., Gupta P.K.
Swept source based fiber optic polarisation sensitive Optical Coherence Tomography setup for tissue birefringence
International Conference on Fiber Optics and Photonics, Photonics 2010, Kharagpur, Guwahati, Dec. 11-15, 2010
23. Singh C.P., Bindra K.S.
Nonlinear absorption behavior in semiconductor doped glasses and its application to optical logic gates.
International Conference on Fiber Optics and Photonics, Photonics 2010, IIT, Kharagpur, Guwahati, Dec. 11-15, 2010
24. Singh S.D., Dixit V.K., Khamari S.K., Ganguli T., Oak S. M.
Quantum states probed by temperature dependence capacitance - voltage measurements for InP/GaAs type II ultrathin QW
Proceedings of DAE- Solid State Physics Symposium 2010, Manipal, 2010
25. Singh S.D., Dixit V.K., Porwal S., Kumar Ravi, Khamari S.K., Srivastava A.K., Ganguli T., Oak S. M.
Structural, optical, and electrical properties of MOVPE grown InP/GaAs type-II ultrathin quantum well
Proc. International Conference on Physics of Emerging Functional Materials (PEFM - 2010), Mumbai, Sept. 22-24, 2010, AIP Conf. Proc. 1313, 250 (2010)
26. Sinnarkar D., Singh N., Verma R.K., Thander P.K., Rajan A.
Scientific Application Software on Centralized Linux Server Setup,
National Conference on Emerging Trends in Computing & Communication (ETCC 2010), Indore, Nov., 19-20, 2010
27. Thander P.K., Rajan A., Rawat A.
Open source software tools for HPC linux clusters
National Conference on Emerging Trends in Computing & Communication (ETCC 2010), Indore, Nov., 19-20, 2010
28. Tomar S.S., Chaudhari S., Patil J., Rawat A.
Implementation and Security analysis of a CallerId augmented 2FA setup for Secure Web-mail access,
International Conference on Advances in Communication, Network, and Computing (CNC



2010), Calicut, Oct., 4-5, 2010

29. Upadhyaya B.N., Kuruvilla A., Chakravarty U., Oak S.M., Shenoy M.R.*, Thyagarajan K.* Realization and analysis of a 150 W peak power single-transverse mode passively Q-switched Yb-doped double-clad fiber laser
International Conference on Fiber Optics and Photonics (PHOTONICS 2010), Guwahati, Dec. 11-15, 2010
30. Verma Y., Nandi P.*, Rao K.D., Sharma M., Gupta P.K. Use of common path phase sensitive spectral domain optical coherence tomography for refractive index measurements
International Conference on Fiber Optics and Photonics, Photonics 2010, Kharagpur, Guwahati, Dec. 11-15, 2010
31. Vinu R.V., Khamari S.K., Dixit V.K., Ganguli T., Kher Sanjay, Oak S.M. Effect of α -ray irradiation on breakdown voltage, ideality factor and series resistance of GaAs P-I-N diode
Proceedings of Photonics 2010, Guwahati, 2010
32. Yadav R.P., Chauhan A., Fatnani P., Varde P.V.* INDUS-2 LCW plant control system using redundant PC at uppermost layer
International Conference on Reliability Safety and Hazards, Mumbai, Dec.14-16, 2010

